



6 December 2010

PATENTS ACT 1977

APPLICANT Hewlett Packard Development Company.

ISSUE Whether patent application number
GB0509900.7 complies with Section 1(2)

HEARING OFFICER Peter Slater

DECISION

Introduction

- 1 Patent application GB0509900.7 entitled “Document transfer between document editing software applications” was filed in the name of Hewlett Packard Development Company on 14 May 2005. The application was then published on 15 November 2006 as GB2426101.
- 2 The examiner has maintained throughout an objection that the invention claimed in this application is excluded from patentability as a computer program under section 1(2)(c) of the Patents Act 1977. The applicant has not been able to overcome this objection, despite amendments to the application.
- 3 The applicant did not wish to be heard and is content for me to decide the matter on the basis of the papers already filed.

The Invention

- 4 The invention relates to editing tools which can be used to prepare documents for high volume printing applications such as the preparation and printing of newspapers. In such cases, it is often desirable to share documents, for example, advertisements and/or news articles across a number of different publications with different in-house styles and layouts. This process is known as “syndication” and often requires the text to be re-formatted.
- 5 A wide variety of text editors and layout design tools are available to prepare the documents content prior to publication. These text editors and layout design tools often obtain content from Content Management Systems (CMS) which allow tagging of text for incorporation into the document. However, there is no standard mechanism by which these tools can access the CMS tags, and tags are often lost when portions of text are exchanged between different CMS applications. As a result, a number of different technologies have emerged for defining data content and structure, and for facilitating the exchange of data between hitherto incompatible systems. For example, Extensible Markup Language (XML) was created to structure, store and to send data between different systems by converting the data into a common format.
- 6 Furthermore, it is often desirable to insert variable content into a document at a specific position know as a “copyhole”. In order to address the problems associated with inserting variable data into so called copyholes, the Personalised Print Markup Language (PPML) was developed. PPML is another XML based format used to define the appearance of text, its position on the page and the space into which it must fit.
- 7 However, problems still occur when articles are shared or syndicated between different publications when it becomes necessary to alter the attributes of the text associated with that article e.g. its structure, style or geometry in order to match the in-house style of the publication and enable it to be inserted in the appropriate place or copyhole. The invention itself provides an improved editing tool which is capable of identifying and labeling document portions or text, tagging the document portion with information (metadata) defining the content, structure and layout of the associated text which can then be exported in a platform-independent format for use in a different editing tool to generate the corresponding article in another publication.
- 8 The current set of claims, are those which were originally filed on 14 May 2005. A copy of these claims is attached to this decision at Annex A.

The Law

- 9 The examiner has raised an objection under section 1(2)(c) of the Patents Act 1977 that the invention is not patentable because it relates to a program for a computer as such; the relevant provisions of this section of the Act are shown in bold below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of –

(a)

(b)

(c) a scheme, rule, or method for performing a mental act, playing a game or doing business, or **a program for a computer;**

(d)

but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

- 10 As explained in the notice published by the UK Intellectual Property Office on 8 December 2008¹, the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*².
- 11 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian Ltd's Application*³. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel*, the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*⁴ which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case.
- 12 Subject to the clarification provided by *Symbian*, it is therefore still appropriate for me, to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel/Macrossan* namely:
- 1) Properly construe the claim
 - 2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).
 - 3) Ask whether it falls solely within the excluded matter, which (see paragraph 45) is merely an expression of the “as such” qualification of section 1(2).

¹ <http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm>

² *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

³ *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1

⁴ *Merrill Lynch's Application* [1989] RPC 561

4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.

- 13 The operation of this test is explained at paragraphs 40-48 of the decision. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 46 explains that the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered the point

Construing the claims

- 14 The first step of the test is to construe the claims. I do not think this presents any real problems since both the applicant and the examiner appear to agree as to the meaning of the claims.

Identify the actual contribution

- 15 For the second step, it is necessary to identify the contribution made by the invention. Paragraph 43 of *Aerotel/Macrossan* explains that this is to be determined by asking what it is - as a matter of substance not form - that the invention has really added to human knowledge having regard to the problem to be solved, how the invention works and what its advantages are.
- 16 The examiner considers the contribution to reside in “*a document editing tool having an export functionality that allows a document structure to be exported, including the necessary style and layout information, from an electronic document containing multiple document structures so the exported document structure can more easily be used in other documents by using a generally useable format independent of the document editing tool.*” Hence providing a more efficient mechanism for transferring portions of documents between different document editing tools with reduced data transfer, processing time and storage requirements resulting from exporting only a portion of the original document.
- 17 The agent in his letter dated 12 July 2010 argues that the contribution “at least partly lies in taking a large document representation corresponding to a real world item, e.g. a newspaper to be printed, and extracting multiple document portions relating to a document structure and providing an output corresponding to another real world item, a particular article or advertisement say, that contains the style, structure and geometry of those document portions in a platform independent product.”
- 18 So, what has the inventor actually added to the stock of “human knowledge?” The contribution to my mind, in its simplest form, amounts to an arrangement for extracting a portion of a document including text e.g. a news article from a newspaper, exporting it together with data defining the style, structure and geometry of the text in a platform independent format which enables text to be exchanged between hitherto incompatible text editors.

Does the contribution fall solely within excluded subject matter? Is the contribution technical in nature?

19 Having considered the papers in their entirety, it is clear to me that the hardware and the system as a whole, is entirely conventional, and there is no doubt in my mind that the contribution requires a computer program for its implementation. However, the mere fact that the invention is effected in software does not mean that it should be immediately excluded as a computer program as such. What matters is whether or not the program provides a technical contribution.

20 The agent argues in his letter dated 12 April 2010 that:

“...the result of exporting a document structure in the manner of the present invention will be a document structure which is encoded with information about the style, structure and geometry of the multiple document portions. As the Examiner notes this document structure can be readily reused within other documents. In other words the present invention provides a means by which the interoperability of various document editing tools is improved and increase the flexibility of the document editing tool used to export the document structure.

Thus the contribution of the present invention is concerned with a technical problem, namely increasing the flexibility and interoperability of the document editing tool and its outputs.

In the absence of the present invention a user who has created a document representation with multiple document structures such as multiple separate articles, advertisements etc. and who wishes to share an individual article with another user who may have a different document editing tool is faced with providing the document representation divorced of any information regarding style, structure and geometry of the document which can lead to difficulties in processing the new document and/or the need to completely reformat the document structure. Alternatively the user can provide the entire representation to another user.

The present invention means that style, structure and geometry of the portions of an article can be exported along with the article in a form that is independent of the particular editing tool thus allowing transfer and use of just the relevant article. This reduces data transfer and storage requirement as compared to providing the entire document representation and also reduces the amount of process required to reproduce the same article with the same structure in a different editing tool and/or to edit said article. This, it is submitted, is clearly a technical effect beyond mere data processing within a computer.

The examiner will be well aware that, as mentioned by the Court of Appeal in Symbian, what is important is what is achieved as a matter of practical reality. In this instance the practical reality is the exporting of a document structure that can be more easily reused by another application and edited within another document.”

21 The agent also makes reference to EPO decision *T 06/83 (IBM)* which was considered in *Aerotel/Macrossan* to be consistent with previous Court of Appeal judgments such as *Merrill Lynch* and is also consistent with the *four step test*. In that decision it was held that:

“the “technical feature” was the removal of the limitations of prior art systems with the result that the data processing system was more flexible and had:

”improved communication facilities between programs and files held at different processors within the known network”.”

Therefore, in light of that decision, the agent would have me believe that the actual contribution provides a technical effect in improving the interoperability and flexibility of the document editing tool and the output therefrom, and that the contribution does not relate to excluded subject matter as such.

- 22 The agent continues this line of argument in his letter dated 12 July 2010 where he states that the manipulation of a large document representation e.g. that of a newspaper containing many different document structures to produce an output corresponding to a single selected document structure, which may be smaller in size and excludes information which is not to be exported, implies that there is a technical process existing outside the computer which does the document editing. Furthermore, the manipulation of the document structure to provide an output in a format that other document editing tools can use also relates to a technical process outside of the computer. Furthermore it will be clear that as only the relevant document portions are exported the data requirements must be less than were the non relevant document portions also communicated. It is therefore submitted that based on the above the contribution of the invention can be seen to relate to a technical process outside of the computer which hosts the document editing tool and which relates to the manipulation of representations of real world items and that the contribution does not relate to excluded subject matter as such.
- 23 The examiner, on the other hand, has maintained throughout the proceedings that there is no technical contribution in terms of solving a technical problem within the computer and can see no technical process existing outside the computer which would otherwise save the invention from exclusion.
- 24 Whilst the invention as claimed clearly provides a solution to the problem of transferring data between two or more different editing tools, I do not consider this to be achieved at a technical level. What the applicant has done has been to enable the exchange of data between the editing tools by providing a program which exports data representing a document structure in a platform independent format which can then be imported and edited in a different editing tool. In effect, they have circumvented rather than solved the problem. What the invention does as a matter of practical reality is to facilitate the transfer of data between two hitherto incompatible editing tools. This is achieved by converting the data into an independent format which can be used by both editing tools. It does not result in a better, faster or more efficient system nor are there any changes to the systems hardware or computer architecture. What the applicant has done is to create a new program, albeit a clever one, which may reduce the load on the computer and its processors, and make more effective use of computer memory. However, this does not detract from the fact that it is still a computer program all the same. Furthermore, I do not consider that the potential to reduce data transfer amounts to a relevant technical effect, as this is achieved by merely sending less data. This would therefore appear to me, to be no more than data manipulation by

means of a computer program, and since the invention does not provide a technical contribution, it falls squarely within the computer program exemption of section 1(2)(c).

Conclusion

- 25 In the light of my findings above, I conclude that the invention as claimed is excluded under section 1(2) because it relates to a computer program as such. Having read the specification I do not think that any saving amendment is possible. I therefore refuse the application under section 18(3).

Appeal

- 26 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any Appeal must be lodged within 28 days of the receipt of this decision.

P Slater

Divisional Director acting for the Comptroller

1 *A method of exporting a document structure from an electronic document representation containing multiple document structures, the method comprising:
 using a document editing tool, selecting multiple document portions relating to the document structure to be exported and including at least one text document portion;*

operating the document editing tool to cause the multiple document portions to be associated with code which identifies the structure and style of the text within each text document portion and which identifies the geometry of the multiple document portions;

operating the document editing tool to store the code and the text content in a format which is independent of the document editing tool.

10. *A method of transferring a document structure from an electronic document representation containing multiple document structures, between first and second document editing tools, the method comprising:*

using the first editing tool:

selecting multiple document portions relating to the document structure to be exported and including at least one text document portion;

causing the multiple document portions to be associated with code which identifies the structure and style of the text within each text document portion and which identifies the geometry of the multiple document portions; and

causing the code and the text content to be stored in a format which is independent of the document editing tool; and

using the second editing tool:

importing the multiple document portions including the code and the text content and causing the structure and style code to be applied to the text content; and

editing the document structure.

22. *A document editing tool computer program comprising code for implementing a method of:*

receiving user input selecting multiple document portions relating to a common document structure to be exported from the editing tool, and including at least one text document portion;

associating the multiple document portions with code which identifies the structure and style of text within each text document portion and which identifies the geometry of multiple document portions;

storing the code and text content in a format which is independent of the document editing tool.

28. *An editing tool system for editing documents for publication, comprising a computer on which a computer program is operated which implements a method of:*

receiving user input identifying multiple document portions relating to a common document structure to be exported from the editing tool, and including at least one text document portion;

associating the multiple document portions with code which identifies the structure and style of the text within each text document portion and which identifies the geometry of the multiple document portions;

storing the code and the text content in a format which is independent of the editing tool.